

Amendments to the Claims:

1. (Currently Amended) A thermoelectric generator comprising a plurality of thin-film n-type and p-type semiconductor elements [[(12, 14)]] that are placed alternately on a dielectric substrate [[(10)]] made of a ceramic and are connected in pairs at their ends to form a plurality of thermocouples [[(16)]], characterized in that said elements [[(12, 14)]] are polycrystalline semiconductor ceramics and in that the dielectric substrate [[(10)]] is thermally insulating and made of a microporous ceramic.

2. (Currently Amended) The generator as claimed in Claim 1, characterized in that the substrate [[(10)]] has a thermal conductivity of less than 0.5 W/mK.

3. (Currently Amended) The generator as claimed in ~~either of the preceding claims~~ Claim 1, characterized in that the semiconductor ceramics have thicknesses of less than 2 mm and, for example, between 0.04 and 1 or 2 mm, approximately.

4. (Currently Amended) The generator as claimed in ~~one of claims 1 to 3~~ Claim 1, characterized in that the semiconductor ceramics are sintered on the substrate [[(10)]].

5. (Currently Amended) The generator as claimed in ~~one of the preceding claims~~ Claim 1, characterized in that the semiconductor elements [[(12, 14)]] deposited on the substrate [[(10)]] are connected in series and/or in parallel.

6. (Currently Amended) The generator as claim in ~~one of the preceding claims~~ Claim 1, characterized in that it comprises a plurality of superposed substrates [[(10)]] carrying semiconductor elements [[(12, 14)]], the semiconductor elements of the substrate [[(10)]] being connected together in series and being connected in series or in parallel to the semiconductor elements [[(12, 14)]] of another substrate [[(10)]].

7. (Currently Amended) The generator as claimed in Claim 1 one of the preceding claims, characterized in that the substrates [[(10)]] are in the form of strips, cylinders, washers or half-washers.

8. (Currently Amended) A process for manufacturing a semiconductor thermoelectric generator ~~of the type described in one of the preceding claims, characterized in that it consists in comprising~~ depositing thin films of polycrystalline semiconductor ceramics [[(12, 14)]] on a dielectric substrate [[(10)]] made of a microporous ceramic and then [[in]] sintering the semiconductor ceramics [[(12, 14)]] by raising the temperature, in order to fix them to the substrate [[(10)]].

9. (Currently Amended) The process as claimed in Claim 8, wherein characterized in that it consists in forming the thin films are deposited by deposition on the substrate [[(10)]] by screen printing from a suspension of semiconductor ceramic powder in a liquid.

10. (Currently Amended) The process as claim in Claim 8 ~~or 9~~, characterized in that the sintering is carried out by passing the dielectric substrate [[(10)]] into a furnace.

11. (Currently Amended) The process as claimed in Claim 8, characterized in that it comprises ~~eonsists in~~ depositing semiconductor ceramic powders on the dielectric substrate, in using a controlled scanning laser beam [[(42)]], so as simultaneously to fix a feature made of semiconductor ceramics to the substrate [[(10)]] and to sinter the semiconductor ceramics of this feature, and then to remove the excess semiconductor ceramic powders from the substrate [[(10)]].

12. (Currently Amended) The process as claimed in Claim 8, characterized in that the dielectric substrate is a textile web [[(30)]] impregnated with a dielectric ceramic suspension [[(34)]], on which web polycrystalline semiconductor ceramic features [[(12, 14)]] are deposited by screen printing, after which the web [[(30)]] is wound up on itself and the wound web [[(38)]]

is placed in a furnace in order to sinter the ceramics and burn off the textile web [[(30)]] so as to give the ceramic substrate a porous structure.

13. (Currently Amended) The process as claimed in Claim 12, characterized in that, after the web has been wound up and before the wound web [[(38)]] is passed into a furnace, connections are formed[[,]] on an end face of the wound web[[,]] between the ends of the semiconductor ceramic features [[(12, 14)]], these connections being made by depositing conducting materials such as conducting inks or pastes, or by metal brazes.

14. (Currently Amended) The process as claimed in Claim 8, characterized in that it comprises ~~eonsists in~~ forming the thin semiconductor ceramic films [[(12, 14)]] on the dielectric substrate [[(10)]] by means used for the fabrication of electronic circuits, ~~such as vapor deposition, for example.~~

15. (New) The process as claimed in Claim 14 wherein the forming of the thin semiconductor ceramic films on the dielectric substrate is performed by means of vapor deposition.

16. (New) The generator as claimed in Claim 3 wherein the semiconductor ceramics have a thickness between 0.04 and 2 mm.